



SIRTF - Operational Features and Characteristics

SIRTF

◆ **SIRTF Is Designed for Easy Operability**

– **Heliocentric orbit**

- ◆ No eclipses or occultations - continuous operations
- ◆ Excellent sky access and visibility - sun angle 80-120 degrees
- ◆ 35% of sky visible at one time for >40 days. Repeat on ~six month centers
- ◆ Continuous viewing of ecliptic poles.

– **No real time communication with spacecraft**

- ◆ Autonomous operations from stored sequences
- ◆ Data downlinked every 12 hours using body-fixed antenna and DSN
- ◆ Respond to Target of Opportunity as quickly as 48 hours

– **Three array-based instruments designed for simple operations**

- ◆ Only two moving parts in payload
- ◆ Just seven distinct observing modes
- ◆ Limited number of array types, multiplexers, and [familiar] data formats

– **Single instrument operation campaigns lasting 3-to-7 days**

- ◆ Optimized cryogenic system minimizes benefit of parallel operations